Blake Wiedenheft

List of Publications by Year
in descending order

63 papers	8,945 citations	94433 37 h-index	118850 62 g-index
93 all docs	93 docs citations	93 times ranked	8037 citing authors

#	Article	IF	Citations
1	RNA-guided genetic silencing systems in bacteria and archaea. Nature, 2012, 482, 331-338.	27.8	1,584
2	Unravelling the structural and mechanistic basis of CRISPRâ€“Cas systems. Nature Reviews Microbiology, 2014, 12, 479-492.	28.6	600
3	Sequence- and Structure-Specific RNA Processing by a CRISPR Endonuclease. Science, 2010, 329, 1355-1358.	12.6	599
4	CRISPR-Mediated Adaptive Immune Systems in Bacteria and Archaea. Annual Review of Biochemistry, 2013, 82, 237-266.	11.1	557
5	Structural basis for CRISPR RNA-guided DNA recognition by Cascade. Nature Structural and Molecular Biology, 2011, 18, 529-536.	8.2	498
6	Temporal Detection and Phylogenetic Assessment of SARS-CoV-2 in Municipal Wastewater. Cell Reports Medicine, 2020, 1, 100098.	6.5	424
7	RNA-guided complex from a bacterial immune system enhances target recognition through seed sequence interactions. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 10092-10097.	7.1	413
8	Structures of the RNA-guided surveillance complex from a bacterial immune system. Nature, 2011, 477, 486-489.	27.8	355
9	Multiple mechanisms for CRISPRâ€“Cas inhibition by anti-CRISPR proteins. Nature, 2015, 526, 136-139.	27.8	325
10	Mechanism of Foreign DNA Selection in a Bacterial Adaptive Immune System. Molecular Cell, 2012, 46, 606-615.	9.7	229
11	Structural Basis for DNase Activity of a Conserved Protein Implicated in CRISPR-Mediated Genome Defense. Structure, 2009, 17, 904-912.	3.3	228
12	Crystal structure of the CRISPR RNAâ€“guided surveillance complex from <i>Escherichia coli</i>. Science, 2014, 345, 1473-1479.	12.6	226
13	Structure Reveals Mechanisms of Viral Suppressors that Intercept a CRISPR RNA-Guided Surveillance Complex. Cell, 2017, 169, 47-57.e11.	28.9	191
14	Type I-E CRISPR-Cas Systems Discriminate Target from Non-Target DNA through Base Pairing-Independent PAM Recognition. PLoS Genetics, 2013, 9, e1003742.	3.5	187
15	Surveillance and Processing of Foreign DNA by the Escherichia coli CRISPR-Cas System. Cell, 2015, 163, 854-865.	28.9	177
16	Structural basis for promiscuous PAM recognition in type Iâ€“E Cascade from E. coli. Nature, 2016, 530, 499-503.	27.8	157
17	Bacteriophage Cooperation Suppresses CRISPR-Cas3 and Cas9 Immunity. Cell, 2018, 174, 917-925.e10.	28.9	139
18	Comparative Genomic Analysis of Hyperthermophilic Archaeal Fuselloviridae Viruses. Journal of Virology, 2004, 78, 1954-1961.	3.4	131

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19	From The Cover: An archaeal antioxidant: Characterization of a Dps-like protein from Sulfolobus solfataricus. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 10551-10556.	7.1	114
20	A Unified Resource for Tracking Anti-CRISPR Names. CRISPR Journal, 2018, 1, 304-305.	2.9	94
21	Foreign DNA acquisition by the I-FÂCRISPRâ€"Cas system requires all components of the interference machinery. Nucleic Acids Research, 2015, 43, 10848-10860.	14.5	88
22	Mechanism of foreign DNA recognition by a CRISPR RNA-guided surveillance complex from Pseudomonas aeruginosa. Nucleic Acids Research, 2015, 43, 2216-2222.	14.5	86
23	Structure Reveals a Mechanism of CRISPR-RNA-Guided Nuclease Recruitment and Anti-CRISPR Viral Mimicry. Molecular Cell, 2019, 74, 132-142.e5.	9.7	79
24	A Conserved Structural Chassis for Mounting Versatile CRISPR RNA-Guided Immune Responses. Molecular Cell, 2015, 58, 722-728.	9.7	78
25	Native Tandem and Ion Mobility Mass Spectrometry Highlight Structural and Modular Similarities in Clustered-Regularly-Interspaced Shot-Palindromic-Repeats (CRISPR)-associated Protein Complexes From Escherichia coli and Pseudomonas aeruginosa. Molecular and Cellular Proteomics, 2012, 11, 1430-1441.	3.8	74
26	Cas1 and the Csy complex are opposing regulators of Cas2/3 nuclease activity. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E5113-E5121.	7.1	74
27	Programmed Self-Assembly of an Active P22-Cas9 Nanocarrier System. Molecular Pharmaceutics, 2016, 13, 1191-1196.	4.6	73
28	Virus movement maintains local virus population diversity. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 19102-19107.	7.1	70
29	Something Old, Something New, Something Borrowed; How the Thermoacidophilic Archaeon Sulfolobus solfataricus Responds to Oxidative Stress. PLoS ONE, 2009, 4, e6964.	2.5	70
30	SARS-CoV-2 genomic surveillance identifies naturally occurring truncation of ORF7a that limits immune suppression. Cell Reports, 2021, 35, 109197.	6.4	65
31	Structures and Strategies of Anti-CRISPR-Mediated Immune Suppression. Annual Review of Microbiology, 2020, 74, 21-37.	7.3	62
32	Hot crenarchaeal viruses reveal deep evolutionary connections. Nature Reviews Microbiology, 2006, 4, 520-528.	28.6	59
33	Fitting CRISPR-associated Cas3 into the Helicase Family Tree. Current Opinion in Structural Biology, 2014, 24, 106-114.	5.7	59
34	Intrinsic signal amplification by type III CRISPR-Cas systems provides a sequence-specific SARS-CoV-2 diagnostic. Cell Reports Medicine, 2021, 2, 100319.	6.5	56
35	Dps-like protein from the hyperthermophilic archaeon Pyrococcus furiosus. Journal of Inorganic Biochemistry, 2006, 100, 1061-1068.	3.5	49
36	Mechanism of CRISPR-RNA guided recognition of DNA targets in<i>Escherichia coli</i>. Nucleic Acids Research, 2015, 43, 8381-8391.	14.5	45

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37	Conformational regulation of CRISPR-associated nucleases. Current Opinion in Microbiology, 2017, 37, 110-119.	5.1	43
38	The CRISPR RNA-guided surveillance complex in<i>Escherichia coli</i>accommodates extended RNA spacers. Nucleic Acids Research, 2016, 44, gkw421.	14.5	42
39	Crystal Structure of F-93 from Sulfolobus Spindle-Shaped Virus 1, a Winged-Helix DNA Binding Protein. Journal of Virology, 2004, 78, 11544-11550.	3.4	39
40	Structure of D-63 from Sulfolobus Spindle-Shaped Virus 1: Surface Properties of the Dimeric Four-Helix Bundle Suggest an Adaptor Protein Function. Journal of Virology, 2004, 78, 7438-7442.	3.4	36
41	A CRISPR method for genome engineering. F1000prime Reports, 2014, 6, 3.	5.9	35
42	Viruses of hyperthermophilic Archaea. Research in Microbiology, 2003, 154, 474-482.	2.1	33
43	A PAX5â€“OCT4â€“PRDM1 developmental switch specifies human primordial germ cells. Nature Cell Biology, 2018, 20, 655-665.	10.3	33
44	The history and market impact of CRISPR RNA-guided nucleases. Current Opinion in Virology, 2015, 12, 85-90.	5.4	31
45	CRISPR RNA-guided autonomous delivery of Cas9. Nature Structural and Molecular Biology, 2019, 26, 14-24.	8.2	27
46	AcrIF9 tethers non-sequence specific dsDNA to the CRISPR RNA-guided surveillance complex. Nature Communications, 2020, 11, 2730.	12.8	27
47	Conformational Dynamics of DNA Binding and Cas3 Recruitment by the CRISPR RNA-Guided Cascade Complex. ACS Chemical Biology, 2018, 13, 481-490.	3.4	26
48	X-ray structure determination using low-resolution electron microscopy maps for molecular replacement. Nature Protocols, 2015, 10, 1275-1284.	12.0	22
49	Live imaging analysis of human gastric epithelial spheroids reveals spontaneous rupture, rotation and fusion events. Cell and Tissue Research, 2018, 371, 293-307.	2.9	22
50	SnapShot: CRISPR-RNA-Guided Adaptive Immune Systems. Cell, 2015, 163, 260-260.e1.	28.9	21
51	In defense of phage. RNA Biology, 2013, 10, 886-890.	3.1	19
52	Distribution and phasing of sequence motifs that facilitate CRISPR adaptation. Current Biology, 2021, 31, 3515-3524.e6.	3.9	18
53	The Interfaces of Genetic Conflict Are Hot Spots for Innovation. Cell, 2017, 168, 9-11.	28.9	16
54	Metatranscriptome Analysis of Sympatric Bee Species Identifies Bee Virus Variants and a New Virus, Andrena-Associated Bee Virus-1. Viruses, 2021, 13, 291.	3.3	15

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55	CRISPR-Cas, Argonaute proteins and the emerging landscape of amplification-free diagnostics. Methods, 2022, 205, 1-10.	3.8	12
56	Bioprospecting in high temperature environments; application of thermostable protein cages. Soft Matter, 2007, 3, 1091.	2.7	11
57	Reproducible Antigen Recognition by the Type I-F CRISPR-Cas System. CRISPR Journal, 2020, 3, 378-387.	2.9	9
58	Type I-F CRISPRâ€“Cas provides protection from DNA, but not RNA phages. Cell Discovery, 2019, 5, 54.	6.7	7
59	CRISPR control of virulence in Pseudomonas aeruginosa. Cell Research, 2017, 27, 163-164.	12.0	4
60	Cas9 slideâ€andâ€seek for phage defense and genome engineering. EMBO Journal, 2019, 38, .	7.8	4
61	CRISPR Surveillance Turns Transposon Taxi. CRISPR Journal, 2020, 3, 10-12.	2.9	4
62	Complete Genome Sequence of Brucella abortus Phage EF4, Determined Using Long-Read Sequencing. Microbiology Resource Announcements, 2020, 9, .	0.6	3
63	Using Cryoem to Understand How Phages Evade Bacterial CRISPR Defense System. Biophysical Journal, 2017, 112, 334a-335a.	0.5	0